Claims

What is claimed is:

1. A method for use in a virus-free certificate proxy (107, 801), of retrieving from one or a plurality of virus-free certificate authorities (104, 804) a virus-free certificate (200) certifying that a file is virus-free, said method comprising the steps of:

- receiving (1001) a virus-free certificate request for a file;
- selecting a virus-free certificate authority (104, 804) having authority to generate a virus-free certificate (200) for the file;
- requesting (1003..1007) the virus-free certificate to the selected virus-free certificate authority (104, 804);
- receiving (1003..1007) from the selected virus-free certificate authority the generated virus-free certificate;
- sending back (1005) in response to the virus-free certificate request the received virus-free certificate.

2. The method according to the claim 1 ~~preceding claim~~ wherein the virus-free certificate request comprises:

- a list of one or a plurality of anti-virus programs to execute on the file to determine whether the file is virus-free or not.

3. The method according to claim 1 ~~any one of the preceding claims~~ wherein the virus-free certificate request comprises:

- the file for which the virus-free certificate is requested.

4. The method according to claim 1 ~~any one of the preceding claims~~ wherein the virus-free certificate request comprises:

FR 9 99 113/YNE

- an identification of the file (902) comprising:

- a file identity (905), or
- an identification of the provider of the file (903), or
- both.

5. The method according to *claim 1* ~~any one of the preceding claims~~ wherein the step of selecting a virus-free certificate authority having authority to generate a virus-free certificate for the file comprises the further steps of:

- determining (1002) whether the virus-certificate request comprises an identification of a virus-free certificate authority or not:

If the virus-free certificate request does not comprises an identification of a virus-free certificate authority:

- selecting (1018) a virus-free certificate authority referring to a first table (901), said first table comprising for each identified file (902) a list of one or a plurality anti-virus programs (914), each list being associated with a virus-free certificate authority (912).

6. The method according to *claim 1* ~~any one of the preceding claims~~ wherein the step of selecting a virus-free certificate authority having authority to generate a virus-free certificate for the file comprises the further steps of:

- determining (1002) whether the virus-certificate request comprises an identification of a virus-free certificate authority or not:

If the virus-free certificate request does not *comprise* ~~comprises~~ an identification of a virus-free certificate authority:

• determining (1013) whether the virus-certificate request comprises an identification of a virus-free certificate relay or not:

If the virus-certificate request does not comprise an identification of a virus-free certificate relay:

• selecting (1018) a virus-free certificate authority referring to a first table (901), said first table comprising for each identified file a list of one or a plurality anti-virus programs (914), each list being associated with a virus-free certificate authority (912), or a virus-free certificate relay (913) or both.

claim 1

7. The method according to ~~any one of the preceding claims~~ wherein the step of selecting a virus-free certificate authority having authority to generate a virus-free certificate for the file comprises the further steps of:

• determining (1002) whether the virus-certificate request comprises an identification of a virus-free certificate authority or not:

If the virus-free certificate request comprises an identification of a virus-free certificate authority:

• selecting the virus-free certificate authority identified in the virus-free certificate request.

claim 1

8. The method according to ~~any one of the preceding claims~~ wherein the step of selecting a virus-free certificate authority having authority to generate a virus-free certificate for the file comprises the further steps of:

• determining (1002) whether the virus-certificate request comprises an identification of a virus-free certificate authority or not:

FR 9 99 113/YNE

If the virus-free certificate request does not comprises an identification of a virus-free certificate authority:

- determining (1013) whether the virus-certificate request comprises an identification of a virus-free certificate relay or not:

If the virus-certificate request comprises an identification of a virus-free certificate relay:

- selecting (1014) a virus-free certificate authority referring to the virus-free certificate relay.

9. The method according to $\wedge$ ~~any one of the preceding claims~~ claim 1 wherein the step of selecting a virus-free certificate authority referring to a first table (901) comprises the steps of:

- determining (1017) whether the file is identified or not in the first table (901):

If the file is identified in the first table (901):

- selecting a list of one or a plurality of anti-virus programs according to the list of one or plurality of anti-virus programs comprised in the virus-free certificate request;
- determining (1018) whether a virus-free certificate authority is associated with the selected list or not;

if a virus-free certificate authority is associated with the selected list:

- selecting the virus-free certificate authority associated with the selected list;

FR 9 99 113/YNE

10. The method according to ~~any one of the preceding claims~~ *claim 1* wherein the step of selecting a virus-free certificate authority referring to a first table comprises the steps of:

- determining (1017) whether the file is identified or not in the first table (901):

If the file is identified in the first table (901):

- selecting a list of one or a plurality of anti-virus programs according to the list of one or plurality of anti-virus programs comprised in the virus-free certificate request;
- determining (1018) whether a virus-free certificate authority is associated with the selected list or not;

if a virus-free certificate authority is not associated with the selected list:

- determining (1019) whether a virus-free certificate relay is associated with the selected list or not;

if a virus-free certificate relay is associated with the selected list:

- selecting (1014) a virus-free certificate authority referring to the virus-free certificate relay;

11. The method according to ~~any one of the preceding claims~~ *claim 1* wherein the step of selecting a virus-free certificate authority referring to a first table comprises the steps of:

- determining whether the file is identified or not in the first table (901):

If the file is not identified in the first table (901):

- selecting (1016) a default virus-free certificate authority (803) in the first table (901).

FR 9 99 113/YNE

Claim 1

A

rr

12. The method according to ~~any one of the preceding claims~~ wherein the step of selecting a virus-free certificate authority referring to ~~the~~ virus-free certificate relay (805) comprises the step of:

- selecting (1014) a virus-free certificate authority referring to. a second table in said virus-free certificate relay, said second table comprising for each identified file a list of one or a plurality of anti-virus programs, each list being associated with a virus-free certificate authority.

Claim 2

13. The method according to ~~any one of the preceding claims~~ wherein the generated virus-free certificate comprises:

- a file signature (207) for certifying that the file is declared virus-free by the selected virus-free certificate authority (104, 804).

Claim 1

14. The method according to ~~any one of the preceding claims~~ wherein the virus-free certificate (200) further comprises:

- a file identification (201);
- a virus-free certificate authority identification (202);
- a public key (203) for decrypting the file signature;
- a certificate signature (206) for authenticating the virus-free certificate;
- a indication of the virus-free certificate validity (204).

Sub A2

15. A system, in particular a virus-free certificate proxy, comprising means adapted for carrying out the method according to any one of the preceding claims.

16. A computer program comprising instructions for carrying out the method according to any one of claims 1 to 14.

FR 9 99 113/YNE